DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 82.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-018224
Date Inspected: 17-Nov-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Westmont Industries

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Santa Fe Springs, CA.

CWI Name: Ruben Dominguez

Inspected CWI report:	☐	Yes	☑	No	☐	N/A
Electrode to specification:	☑	Yes	☐	No	☐	N/A
Qualified Welders:	☑	Yes	☐	No	☐	N/A
Approved Drawings:	☑	Yes	☐	No	☐	N/A

CWI Present:	☑	Yes	☐	No		
Rod Oven in Use:	☐	Yes	☐	No	☑	N/A
Weld Procedures Followed:	☑	Yes	☐	No	☐	N/A
Verified Joint Fit-up:	☑	Yes	☐	No	☐	N/A
Approved WPS:	☑	Yes	☐	No	☐	N/A
Delayed / Cancelled:	☐	Yes	☑	No	☐	N/A

Bridge No: 34-0006
Component: Travelers

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding, WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing of the Travelers. Upon the arrival of the QA Inspector the following observations were made:

Traveler Test Rack

On this date, The QA Inspector observed production welders Mr. Jim Muetzel (WID # 3133) continuing to perform Gas Metal Arc welding (GMAW) and fitting activities on plate material, for the Traveler Test Rack. The QA Inspector observed that the activities were being performed on the top and bottom flange plate material Complete Joint Penetration (CJP) splices, for the Box Beam Assembly 1-A1.

On this date, the QA Inspector observed production welder Mr. Michael Ruiz (WID # 3155) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post to base support columns and connector plates, for the Traveler Test Rack. The QA Inspector observed that the assembly appeared to be identified as Column B1, Assembly 14-F7. Reference shop drawing WMI –TTR-7. The QA Inspector observed Mr. Ruiz performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

On this date, the QA Inspector observed production welder Mr. Daniel Grayum (WID # 3049) continuing to perform Flux Core Arc welding (FCAW) welding activities on the vertical post assemblies, for the Traveler Test Rack. Reference shop drawing WMI –TTR-16 and WMI –TTR-17. The QA Inspector observed Mr. Grayum

performing the FCAW in various positions, throughout the shift and the weld joints appeared to be designated as fillet and flare groove welds, per the shop drawings.

SAS-EB Traveler
Fixed Stairs Section
On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Jose Rodriguez (WID # 3031), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit Frame assemblies, identified as 10-A237, 11-B237, 3-A217, 4-A218, 5-A223 and 6-A224. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds. Additionally, the QA Inspector observed a WMI helper continuing to perform grinding activities on the previously completed fillet and flare groove welds on the Fixed Stairs Section. The QA Inspector observed that the grinding was being performed on previously marked areas by SE QC Inspector Ruben Dominguez, during preliminary Visual Testing. The QA Inspector observed that the areas previously marked and which the grinding was being performed, included excessive weld spatter, reinforcement and weld termination areas, which appeared to be not in compliance with the requirements of AWS D1.1 2002.

Lower Truss Section
The QA Inspector observed WMI production personnel Mr. Raymundo Anaya (WID # 3196) and Mr. Cesar Canales performing fitting and tacking activities on the Elevating Platform, for the Lower Truss Section. The QA Inspector observed that the fitting and tacking activities were being performed on the Stair Risers, piece marks identified as C270F, to Stair Support, piece mark identified as B270F. The QA Inspector observed that the layout on the Stair Support material had been previously completed and the Stair Riser material was being fit-up and the Flux Core Arc Welding (FCAW) process was being utilized by Mr. Lopez, to perform the tack welding of the Stair Riser to Stair Support material.

E2/E3-EB Traveler
On this date, the QA Inspector observed WMI production welder Mr. Juan Jimenez (WID # 3059), continuing to perform Flux Core Arc Welding (FCAW) welding activities on the intermediate diagonal bracing Tube Steel (TS) material. The QA Inspector observed that the FCAW being performed by Mr. Jimenez appeared to be for the Frame Assembly identified as 9-A332 and 10-B332, per the shop drawings. The QA Inspector observed that the weld joints appeared to be designated as 6mm fillet and flush flare groove welds and that Mr. Jimenez was performing the FCAW in the flat (1G) and vertical (3F) positions, throughout the shift.

The QA Inspector randomly observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and fitting activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. During random observation, the QA Inspector observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned welding and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

Summary of Conversations:

On this date, the QA Inspector was informed by WMI Quality assurance Representative Mr. Curtis Bell that Hansen Steel has received plate material, which will be utilized for the fabrication of the Travelers and requested that the QA Inspector perform an inspection on the material, prior to cutting.

At approximately 0900, the QA Inspector arrived at Hanson Steel, Santa Fe Springs, Ca. as requested and met with a Hansen Steel representative. Upon arrival, the HS representative explained that the plate material was located outside in the laydown area. The QA Inspector then requested the Mill Test Reports (MTR's) for the material and was then provided these. After receiving the MTR's, the QA Inspector was then escorted to the area which the material was located. After locating the material, the QA Inspector observed that the material was cut to miscellaneous dimensional measurements and observed that the material grade, heat number and thickness were clearly written on each piece of material and this information appeared to match the MTR's, which were previously provided. During the inspection, the QA Inspector observed that one piece of plate material appeared to be A1011 Gr. 50 material. The QA Inspector noted that the contract requirements for plate material are specified as A572 Gr. 50 material. The QA Inspector then informed the HS representative of this and the representative explained that due to the thickness of the material, that the material is designated as sheet material and not plate material. The representative further explained that the chemical and mechanical properties are identical to the A572 Gr. 50 material.

The QA Inspector was then escorted back to the office area and then wrote "OK to Cut" on the MTR's. The QA Inspector was then provided copies of the MTR's and the material is listed as follows:

1 each .185" thickness A1011 Gr. 50 Ht. # H12665
1 each .625" thickness A572 Gr. 50 Ht. # A9C211
1 each .8750" thickness A572 Gr. 50 Ht. # NT3672
1 each 1.25" thickness A572 Gr. 50 Ht. # S7-11057
1 each 1" thickness A572 Gr. 50 Ht. # H1633010
1 each .3125" thickness A572 Gr. 50 Ht. # NT2887
1 each .625" thickness A572 Gr. 50 Ht. # A9C211
1 each .375" thickness A572 Gr. 50 Ht. # 104757
1 each .500" thickness A572 Gr. 50 Ht. # NT1839
1 each .750" thickness A572 Gr. 50 Ht. # H1625776

At approximately 1030, the QA Inspector arrived at Westmont Industries (WMI) and met with WMI representative Brad Petrie. The QA Inspector explained to Mr. Petrie that the above mentioned A1011 Gr. 50 sheet material appears to be an adequate substitution for the A572 Gr. 50 material, but the contract drawings do not specify the grade of sheet, only plate material. The QA Inspector further explained that this should be submitted to Caltrans as a Request For Information, prior to WMI receiving the material and utilizing for the fabrication of the Travelers. Mr. Petrie then explained that an RFI will be submitted regarding the material substitution and he will request a high priority for a response.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

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Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer